

Westfälische Wilhelms-Universität Münster FACHBEREICH 10 MATHEMATIK UND INFORMATIK Prof. Dr. Xiaoyi Jiang Dekan

05.07.2017

## Einladung

zu der am Mittwoch, den 12. Juli 2017, um 14:15 Uhr im Hörsaal M5 stattfindenden

## Antrittsvorlesung

## von Herrn JProfessor Dr. Farmer Schlutzenberg

über das Thema

"Strong axioms of infinity and inner models"

Kurzfassung:

Various mathematical questions are known to be undecidable within the standard axioms of mathematics (these axioms are collectively called ZFC). A central example is the question "How many real numbers exist?". Cantor suggested a natural answer to this question via the Continuum Hypothesis (CH). But it was later shown that ZFC does not prove, nor disprove, CH. Similarly, ZFC does not decide whether all projective sets of real numbers have nice properties such as Lebes-gue measurability. Strong axioms of infinity give a natural extension of ZFC, and they prove that projective sets do have such properties (but they do not decide CH). We will give an introduction to these strong axioms, and their canonical realizations in substructures of the mathematical universe known as inner models.

gez. Xiaoyi Jiang, Dekan